



State of Michigan  
Department of Environmental Quality  
**HAZARDOUS WASTE MANAGEMENT FACILITY OPERATING LICENSE**

11/3/08 Public Notice DRAFT

NAME OF LICENSEE: The Dow Chemical Company  
NAME OF FACILITY OWNER: The Dow Chemical Company  
NAME OF FACILITY OPERATOR: The Dow Chemical Company  
NAME OF TITLEHOLDER OF LAND: The Dow Chemical Company  
FACILITY NAME: Salzburg Landfill  
FACILITY LOCATION: 2314 Salzburg Road, Midland, Michigan 48640

EPA IDENTIFICATION (ID) NUMBER: MID 980 617 435

EFFECTIVE DATE:

FIVE-YEAR REVIEW DATE:

REAPPLICATION DATE:

EXPIRATION DATE:

**AUTHORIZED ACTIVITIES**

Pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), being §§324.11101 to 324.11153 of the Michigan Compiled Laws, and the hazardous waste management administrative rules (hereafter called the "rules") promulgated thereunder, being R 299.9101 *et. seq.* of the Michigan Administrative Code, by the Michigan Department of Environmental Quality (MDEQ), an operating license (hereafter called the "license") is issued to The Dow Chemical Company (hereafter called the "licensee") to operate a hazardous waste management facility (hereafter called the "facility") located at latitude 43° 36' 12" N and longitude 84° 13' 23" W. The licensee is authorized to conduct the following hazardous waste management activities:

STORAGE	TREATMENT	<input checked="" type="checkbox"/> DISPOSAL	<input checked="" type="checkbox"/> POSTCLOSURE
Container	Container	<input checked="" type="checkbox"/> Landfill	Tank
Tank	Tank	Land Application	Surface Impoundment
Waste Pile	Surface Impoundment	Surface Impoundment	<input checked="" type="checkbox"/> Landfill
Surface Impoundment	Incinerator		Waste Pile
Drip Pad	Other:		

**APPLICABLE REGULATIONS AND LICENSE APPROVAL**

The conditions of this license were developed in accordance with the applicable provisions of the rules, effective March 7, 2008. The licensee shall comply with all terms and conditions of this license. This license consists of the 25 pages of conditions attached hereto (in addition to those in Attachments 1 through 9) and the applicable regulations contained in R 299.9101 through R 299.11008, as specified in the license. For purposes of compliance with this license, applicable rules are those that are in effect on the date of issuance of this license in accordance with R 299.9521(3)(a).

This license is based on the information in the license application submitted on July 15, 1991, resubmitted on March 29, 2007, and any subsequent amendments (hereafter referred to as "the application"). Pursuant to R 299.9519(11)(c), the license may be revoked if the licensee fails, in the application or during the license issuance process, to disclose fully all relevant facts or, at any time, misrepresents any relevant facts. As specified in R 299.9519(1), the facility shall be constructed, operated, and maintained in accordance with Part 111 of Act 451, the rules, and this license.

This license is effective on the date of issuance and shall remain in effect for 10 years from the date of issuance, unless revoked pursuant to R 299.9519 or continued in effect as provided by the Michigan Administrative Procedures Act, 1969 PA 306, as amended (Act 306). Pursuant to R 299.9516, this license shall be reviewed by the MDEQ five years after the date of issuance and shall be modified as necessary in accordance with the provisions of R 299.9519 and R 299.9520.

Issued this \_\_\_\_ day of \_\_\_\_\_, 2009

by \_\_\_\_\_  
George W. Bruchmann, Chief  
Waste and Hazardous Materials Division

**HAZARDOUS WASTE MANAGEMENT FACILITY OPERATING LICENSE  
FOR  
THE DOW CHEMICAL COMPANY  
SALZBURG LANDFILL  
MID 980 617 435**

**TABLE OF CONTENTS**

	Page
<b>PART I:        STANDARD CONDITIONS</b>	
A.    Terminology and References .....	1
B.    Effect of License .....	1
C.    Severability .....	1
D.    Responsibilities .....	1
E.    Submittal Deadlines .....	2
 <b>PART II:       GENERAL OPERATING CONDITIONS</b>	
A.    General Waste Analysis .....	3
B.    Security .....	3
C.    General Inspection Requirements .....	3
D.    Personnel Training .....	3
E.    Preparedness and Prevention .....	3
F.    Contingency Plan .....	3
G.    Duty to Mitigate .....	3
H.    Manifest System .....	4
I.    Record Keeping and Reporting .....	4
J.    Closure .....	5
K.    Postclosure .....	5
L.    Financial Assurance for Closure .....	5
M.    Financial Assurance for Postclosure .....	5
N.    Financial Assurance for Corrective Action .....	6
O.    Financial Responsibility for Liability Coverage .....	6

P.	Waste Minimization .....	6
Q.	Land Disposal Restrictions .....	6
R.	Documents to be Maintained at the Facility .....	6
S.	Facility Engineering Plans.....	7
T.	Site Review Board Limitation on Waste Acceptance .....	7

### **PART III: LANDFILL DISPOSAL CONDITIONS**

A.	Coverage of License .....	8
B.	Waste Identification and Quantity .....	8
C.	Design and Run-On, Runoff, and Containment Control .....	9
D.	Waste Placement .....	9
E.	Closure/Postclosure .....	
F.	Additional Reporting.....	10

### **PART IV: ENVIRONMENTAL MONITORING CONDITIONS**

A.	Groundwater Monitoring Program .....	11
B.	Ambient Air Monitoring Program .....	14
C.	Soil Monitoring Program .....	14
D.	Surface Water Monitoring Program .....	16
E.	Leachate Monitoring Program .....	16
F.	Leak Detection System Monitoring Program .....	17

### **PART V: CORRECTIVE ACTION CONDITIONS**

A.	Corrective Action at the Facility .....	20
B.	Corrective Action Beyond the Facility Boundary .....	20
C.	Identification of Waste Management Units .....	20
D.	RCRA Facility Investigation/Remedial Investigation .....	22
E.	Interim Measures/Interim Response Activities .....	22
F.	Determination of No Further Action .....	22

G.	Corrective Measures Study/Feasibility Study .....	23
H.	Corrective Measures Implementation Plan/Remedial Action Plan .....	23
I.	Corrective Action Management Units .....	24
J.	Temporary Units .....	24
K.	Summary of Corrective Action Submittals .....	24
L.	Corrective Action Documents Retention .....	25

## **LIST OF ATTACHMENTS**

Attachment 1	Waste Analysis Plan
Attachment 2	Inspection Schedule
Attachment 3	Personnel Training Program
Attachment 4	Contingency Plan
Attachment 5	Closure Plan
Attachment 6	Postclosure Plan
Attachment 7	Facility Site Topographic Map and Engineering Plans
Attachment 8	List of Acceptable Waste Types
Attachment 9	Environmental Monitoring Program Sampling and Analysis Plan

## **PART I STANDARD CONDITIONS**

### **A. TERMINOLOGY AND REFERENCES**

Throughout this license, the term "Division" means the Waste and Hazardous Materials Division within the MDEQ responsible for administering Part 111 of Act 451 and the rules. Throughout this license, "Director" means the Director of the MDEQ or the Director's duly authorized designee such as the Division Chief. Throughout this license, the term "day" means calendar day, unless specified as business day or otherwise provided for in Condition I.E. All of the provisions of Title 40 of the Code of Federal Regulations (CFR) referenced in this license are adopted by reference in R 299.11003.

### **B. EFFECT OF LICENSE**

Except as otherwise provided by law, any treatment, storage, or disposal of hazardous waste not specifically authorized in this license is prohibited. Issuance of this license does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal, state, or local law or regulations {R 299.9516(8)}; nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law. Compliance with the terms of this license does not constitute a warranty or representation of any kind by the MDEQ, nor does the MDEQ intend that compliance with this license constitutes a defense to any order issued or any action brought under Act 451 or any other applicable state statute or §106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) {42 USC 9606(a)}, the Resource Conservation and Recovery Act of 1976, as amended (RCRA), and its rules, or any other applicable federal statute. The licensee, however, does not represent that it will not argue that compliance with the terms of this license may be a defense to such future regulatory actions. Each attachment to this license is a part of, and is incorporated into, this license and is deemed an enforceable part of the license.

### **C. SEVERABILITY**

The provisions of this license are severable, and if any provision of this license, or the application of any provision of this license to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this license shall not be affected thereby.

### **D. RESPONSIBILITIES**

1. The licensee shall comply with Part 111 of Act 451, the rules, and all conditions of this license, except to the extent authorized by the MDEQ pursuant to the terms of an emergency operating license. Any license noncompliance, except to the extent authorized by the MDEQ pursuant to the terms of an emergency operating license, constitutes a violation of Part 111 of Act 451 and is grounds for enforcement action, license revocation, license modification, or denial of a license renewal application. {R 299.9521(1)(a) and (c) and (3)(a) and (b), and 40 CFR §270.30(a)}
2. If the licensee wishes to continue an activity regulated by this license after the expiration date of this license, the licensee shall submit a complete application for a new license to the Division Chief by \_\_\_\_\_, 2018, which is at least 180 days before this license expires, unless an extension is granted pursuant to R 299.9510(5). To the extent the licensee makes a timely and sufficient application for renewal of this license, this license and all conditions herein will remain in effect beyond the license expiration date and shall not expire until a decision on the application is finally made by the MDEQ, and if the application is denied or the terms of the new license are limited, until the last day for applying for judicial review of the new license or a

later date fixed by order of the reviewing court consistent with §91(2) of Act 306.  
{R 299.9521(1)(a) and (c) and (3)(a), and 40 CFR §270.30(b)}

3. The licensee shall comply with the conditions identified below:

- |     |  |   |
|-----|--|---|
| (a) | Facility enlargement, alteration, or expansion   | R 299.9521(1)(b)(i)                           |
| (b) | Submission of statements and certifications for construction and capability                                      | R 299.9521(1)(b)(ii)                          |
| (c) | License modification requirements for transferring ownership before new owner/operator accepting hazardous waste | R 299.9521(1)(b)(iii)<br>40 CFR §270.30(l)(3) |
| (d) | Need to halt or reduce activity not a defense  | 40 CFR §270.30(c)                             |
| (e) | Duty to mitigate   | 40 CFR §270.30(d)                             |
| (f) | Proper operation and maintenance   | 40 CFR §270.30(e)                             |
| (g) | Permit actions   | 40 CFR §270.30(f)                             |
| (h) | Property rights  | 40 CFR §270.30(g)                             |
| (i) | Duty to provide information  | 40 CFR §270.30(h)                             |
| (j) | Inspection and entry   | 40 CFR §270.30(i)                             |
| (k) | Monitoring and records   | 40 CFR §270.30(j)                             |
| (l) | Signatory requirements   | 40 CFR §270.30(k)                             |
| (m) | Anticipated noncompliance  | 40 CFR §270.30(l)(2)                          |
| (n) | Compliance schedules   | 40 CFR §270.30(l)(5)                          |
| (o) | Manifest discrepancy report  | 40 CFR §270.30(l)(7)                          |
| (p) | Other information  | 40 CFR §270.30(l)(11)                         |
| (q) | Information repository   | 40 CFR §270.30(m)                             |

{§§11123(3), 11146(1) and (2), and 11148(1) of Act 451 and R 299.9501(1), R 299.9516, R 299.9519, R 299.9521(1)(a) and (b) and (3)(a) and (b), R 299.9522, and R 299.9525}

4. The licensee shall give notice to the Division Chief as soon as possible prior to any planned physical alterations or additions to the licensed facility.

**E. SUBMITTAL DEADLINES**

When the deadline for submittals required under this license falls on a weekend or legal state holiday, the deadline shall be extended to the next regular business day. This extension does not apply to the deadline for financial mechanisms and associated renewals, replacements, and extensions of financial mechanisms required under this license. The licensee may request extension of the deadlines for submittals required under this license. The licensee shall submit such requests at least five business days prior to the existing deadline for review and approval by the Division Chief. Written extension requests shall include justification for each extension. {R 299.9521(3)(a)}

**PART II  
GENERAL OPERATING CONDITIONS**

**A. GENERAL WASTE ANALYSIS**

The licensee shall ensure that any waste managed at the facility has been properly characterized pursuant to R 299.9302 and comply with the procedures described in the attached Waste Analysis Plan, Attachment 1, of this license. {R 299.9605(1), and 40 CFR §264.13}

**B. SECURITY**

The licensee shall comply with the barrier, surveillance, and signage requirements of R 299.9605(1) and 40 CFR §264.14.

**C. GENERAL INSPECTION REQUIREMENTS**

1. The licensee shall inspect the facility in accordance with the Inspection Schedule, Attachment 2, of this license and comply with the inspection requirements of R 299.9605(1) and 40 CFR §264.15.
2. The licensee shall develop and implement a procedure to ensure compliance with the requirements of R 299.9605(2) regarding transport vehicles and other containers leaving the facility.

**D. PERSONNEL TRAINING**

The licensee shall comply with the personnel training requirements of R 299.9605 and 40 CFR §264.16. The Personnel Training Program, Attachment 3, of this license shall, at a minimum, cover all items in R 299.9605 and 40 CFR §264.16.

**E. PREPAREDNESS AND PREVENTION**

The licensee shall comply with the preparedness and prevention requirements of R 299.9606 and 40 CFR Part 264, Subpart C.

**F. CONTINGENCY PLAN**

The licensee shall comply with the contingency plan requirements of R 299.9607 and 40 CFR Part 264, Subpart D. The Contingency Plan, Attachment 4 of this license, and the prescribed emergency procedures shall be immediately implemented by the licensee whenever there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that threatens or could threaten human health or the environment, or if the licensee has knowledge that a spill has reached surface water or groundwater.

**G. DUTY TO MITIGATE**

Upon notification from the Division Chief or his or her designee that an activity at the facility may present an imminent and substantial endangerment to human health or the environment, the licensee shall immediately comply with an order issued by the Division Chief pursuant to §11148(1) of Act 451 to halt such activity and conduct other activities as required by the Division Chief to eliminate the said endangerment. The licensee shall not resume the halted activity without the prior written approval from the Division Chief. {§11148 of Act 451 and R 299.9521(3)(b)}

## H. **MANIFEST SYSTEM**

The licensee shall comply with the manifest requirements of R 299.9304, R 299.9305, and R 299.9608.

## I. **RECORD KEEPING AND REPORTING**

1. The licensee shall comply with the written operating record requirements of R 299.9609 and 40 CFR §264.73 and Part 264, Appendix I.
2. The licensee shall comply with the biennial report requirements of R 299.9610. {R 299.9521(1)(a) and 40 CFR §270.30(l)(9)}
3. The licensee shall submit the results of all environmental monitoring required by this license and any additional environmental sampling and analysis conducted beyond that required in the license in the form of an Environmental Monitoring Report to the Division Chief within 60 days after the end of the quarter in which the sample(s) were analyzed. Such increased frequency shall also be indicated in the Environmental Monitoring Report. {R 299.9521(1)(a) and R 299.9521(3)(b) and 40 CFR §270.30(l)(4)}
4. The licensee shall provide environmental monitoring information or data that is required pursuant to this license, to an authorized representative of an environmental or emergency response department of the city of Midland or county of Midland, who requests such information or data and that has jurisdiction over the facility. Such information or data shall be made available on the same day the licensee forwards this information to the Division Chief. {R 299.9521(3)(b)}
5. The licensee shall immediately report to the Division Chief any noncompliance with the license that may endanger human health or the environment by doing both of the following:
  - (a) The licensee shall immediately notify the Division Chief at 517-335-2690, if the noncompliance occurs Monday through Friday during the period of 8:00 a.m. to 5:00 p.m., except state holidays, or by calling the MDEQ Pollution Emergency Alerting System (PEAS) at 1-800-292-4706 during all other times. This notice shall include the following:
    - (i) Information concerning the fire, explosion, release, or discharge of any hazardous waste or hazardous waste constituent that could threaten human health or the environment, that has reached surface water or groundwater, or that may endanger public drinking water supplies or the environment; and
    - (ii) A description of the occurrence and its cause, including all of the information outlined in R 299.9607(2)(a)-(i).
  - (b) The licensee shall also follow up the verbal notice by providing a written report to the Division Chief within five days of the time the licensee becomes aware of the circumstances. The written report shall contain all of the information in Condition II.I.5.(a)(i)-(ii) of this license along with a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance and when those activities occurred or will occur. The Division Chief may waive the five-day written notice requirement if the licensee submits a written



report containing this information within 15 days of the time the licensee becomes aware of the circumstances.

{R 299.9521(1)(a) and R 299.9607 and 40 CFR §270.30(l)(6)}

6. The licensee shall report all other instances of noncompliance with this license, Part 111 of Act 451, the rules, and any other applicable environmental laws or rules that apply to the licensed facility, at the time monitoring reports required by this license are submitted or within 30 days, whichever is sooner. The reports shall contain the information listed in Condition II.I.5. of this license. {R 299.9521(1)(a) and 40 CFR §270.30(l)(10)}
7. The licensee may make minor modifications to the forms contained in the attachments to this license. The modifications may include changing the format, updating existing references and information, adding necessary information, and changing certification and notification information in accordance with Part 111 of Act 451 and its rules and RCRA and its regulations. The licensee shall submit the modifications to the Division Chief prior to implementing the use of the modified form(s). If the Division Chief does not reject or require revision of the modified form(s) within 14 days of receipt, the licensee shall implement use of the modified form(s) and the form(s) shall be incorporated into this license as a replacement for the existing form(s).

**J. CLOSURE**

The licensee shall comply with the closure requirements of R 299.9613. The licensee shall close the facility in accordance with the Closure Plan, Attachment 5, of this license, all other applicable requirements of this license, and all other applicable laws. {R 299.9613 and 40 CFR Part 264, Subpart G, except 40 CFR §§264.112(d)(1), 264.115, and 264.120}

**K. POSTCLOSURE**

The licensee shall comply with the postclosure monitoring requirements of R 299.9613, and monitor and maintain the facility in accordance with the Postclosure Plan, Attachment 6, of this license. The licensee shall submit a certification of postclosure in accordance with R 299.9613(5). {R 299.9613 and 40 CFR §§264.116 through 264.119}

**L. FINANCIAL ASSURANCE FOR CLOSURE**

1. On the effective date of this license, the facility closure cost estimate is \$2,547,500. The licensee shall keep this estimate current as required under R 299.9702 and 40 CFR §264.142.
2. The licensee shall continuously maintain financial assurance for the current closure cost estimate as required under R 299.9703.

**M. FINANCIAL ASSURANCE FOR POSTCLOSURE**

1. On the effective date of this license, the facility postclosure cost estimate is \$10,179,480. The licensee shall keep this estimate current as required under R 299.9702 and 40 CFR §264.144.
2. The licensee shall continuously maintain financial assurance for the current postclosure cost estimate as required under R 299.9703.

**N. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION**

1. The licensee shall keep an estimate for the cost of performing corrective action at the facility current as required under R 299.9712.
2. The licensee shall comply with the financial assurance requirements for correction action as required under R 299.9713.

**O. FINANCIAL RESPONSIBILITY FOR LIABILITY COVERAGE**

The licensee shall continuously maintain liability coverage for sudden and accidental occurrences and nonsudden accidental occurrences, as required by R 299.9710.

**P. WASTE MINIMIZATION**

The licensee shall certify, at least annually, that the licensee has a hazardous waste minimization program in place. {R 299.9609(1)(a), 40 CFR §264.73(b)(9), and §3005(h) of RCRA, 42 U.S.C. §6925(h)}

**Q. LAND DISPOSAL RESTRICTIONS**

The licensee shall comply with all of the requirements of 40 CFR Part 268, except where provided for in approved site-specific land disposal restrictions treatability variances. {R 299.9627}

**R. DOCUMENTS TO BE MAINTAINED AT THE FACILITY**

The licensee shall maintain at the facility, or at an alternate location(s) approved by the Division Chief, the following documents and amendments required by this license, until closure/postclosure is completed, certified by an independent registered professional engineer, and the facility is released from financial assurance requirements for closure/postclosure by the Director:

1. Waste Analysis Plan, including Quality Assurance/Quality Control (QA/QC) Plans.
2. Inspection Schedules and records.
3. Personnel Training Program documents and records.
4. Contingency Plan.
5. Closure and Postclosure Plans.
6. Cost estimates for facility closure, postclosure, and corrective action and copies of related financial assurance documents.
7. Operating record.
8. Site Security Plan.
9. Facility engineering plans and specifications.
10. Record keeping procedures.
11. Environmental monitoring plans, including Sampling and Analysis Plans and QA/QC Plans.
12. Environmental monitoring data and statistical records.
13. Preventative procedures (Personnel Protection Plan).
14. Hazardous waste minimization program certification.

Approved alternate license-related documents storage locations other than the facility are the licensee's Michigan Operations facility with a mailing address of 1790 Building, Washington Street, Midland, Michigan, 48674, and at the Midland, Michigan storage locations of the licensee's Global Records Center, the administrative office of which is located at 4520 East Ashman, Midland, Michigan 48642. {R 299.9609(1) and R 299.9521(3)(a)}

**S. FACILITY ENGINEERING PLANS**

The licensee shall construct, operate, and maintain the facility in accordance with the Facility Site Topographic Map and Engineering Plans, Attachment 7 of this license, and any modifications to those plans shall be made in accordance with this license.

**T. SITE REVIEW BOARD LIMITATION ON WASTE ACCEPTANCE**

The licensee shall not accept hazardous waste at the facility between the hours of 3:00 p.m. and 5:00 p.m. or during times when hazardous driving conditions exist. Hazardous driving conditions will be considered to exist when a hazard warning for the county of Midland has been issued by the Midland County Sheriff's Office.

**PART III  
LANDFILL DISPOSAL CONDITIONS**

**A. COVERAGE OF LICENSE**

The hazardous waste landfill and related appurtenances (piping, pumps, operation and maintenance buildings, etc.) at the facility shown in Drawings B2-100-1374/B2-101-1374, the facility Site Topographic Map, and B2-001-1374, Existing and Future Cell Layout, are covered by this license. Any expansion or enlargement beyond the design capacity of 3,090,000 cubic yards or beyond the area shown in Drawing B2-100-1374/B2-101-1374 requires a construction permit from the Director. Drawings B2-100-1374/B2-101-1374 and B2-001-1374 and the attached plans and specifications are incorporated into this license as Attachment 7, Facility Site Topographic Map and Engineering Plans. {R 299.9521(1)(b)}

**B. WASTE IDENTIFICATION AND QUANTITY**

1. The licensee, except to the extent prohibited under Condition III.B.2. below, may dispose a total volume of 3,090,000 cubic yards of hazardous and compatible nonhazardous waste in the landfill, subject to the terms of this license. The licensee shall not dispose of any hazardous waste not listed in the List of Acceptable Waste Types, Attachment 8 of this license, unless the Division Chief approves the disposal of such waste types through an amendment to this license. {R 299.9521(2)(d)}
2. The licensee shall not accept for disposal any hazardous waste not listed in Attachment 8 of this license or any incompatible nonhazardous wastes or materials that meet any of the following criteria {R 299.9521(2)(d)}:
  - (a) Ignitable wastes as described in R 299.9212(1), unless the provisions of 40 CFR §264.312 are met. {R 299.9619}
  - (b) Reactive wastes as described in R 299.9212(3), unless the provisions of 40 CFR §264.312 are met. {R 299.9619}
  - (c) Bulk or noncontainerized liquid waste or waste containing free liquids. {R 299.9619(2) and 40 CFR §264.314(b)}
  - (d) Containers holding free liquids. {R 299.9619(5) and 40 CFR §264.314(d)}
  - (e) Waste that will:
    - (i) Adversely affect the permeability of the clay liner. {R 299.9521(3)(b), R 299.9619, and R 299.9620 and 40 CFR §264.301}
    - (ii) Produce a leachate that is incompatible with the clay liner, leachate collection system piping, or the off-site sewer system. {R 299.9521(3)(b), R 299.9619, and R 299.9620(3) and 40 CFR §264.301}
    - (iii) Generate gases that will adversely affect the permeability of the clay cap or create a violation of Part 55 of Act 451. {R 299.9602 and R 299.9619(5)(c)}
3. The licensee shall not accept hazardous wastes for landfilling unless the wastes are placed in closed containers or otherwise totally contained or covered during transportation. {R 299.9521(3)(b)}

**C. DESIGN AND RUN-ON, RUNOFF, AND CONTAMINANT CONTROL**

1. The licensee shall construct, design, and maintain a liner system in accordance with R 299.9619, R 299.9620, and R 299.9621. {R 299.9619, R 299.9620, R 299.9621, and 40 CFR §§264.301 and 264.303}
2. The licensee shall operate and maintain a run-on control system capable of preventing storm water flow onto the active portions of the landfill during peak discharge from at least a 24-hour, 25-year storm. {R 299.9604(1)(a)}
3. The licensee shall operate and maintain a runoff management system to collect and control the storm water volume resulting from at least a 24-hour, 100-year storm. {R 299.9604(1)(b)}
4. The licensee shall expeditiously empty or otherwise manage collection and holding facilities (e.g., tanks or catch basins) associated with run-on and runoff control systems after storms to maintain the design capacity of the system. {R 299.9619 and 40 CFR §264.301(h)}
5. The licensee shall cover or otherwise manage the landfill to control dispersal of particulate matter. {R 299.9619 and 40 CFR §264.301(i)}
6. The licensee shall operate and maintain a vehicle wash facility. The licensee shall ensure that all vehicles traveling on active portions of the site are cleaned and decontaminated at this facility before leaving the active area. {R 299.9521(3)(b)}
7. The licensee shall operate all vehicles in a manner that will minimize the contamination of internal haul roads. The licensee shall ensure that hauling vehicles minimize driving on waste, and any trackout of waste from the landfill shall be returned to the landfill immediately. {R 299.9521(3)(b) and R 299.9604(1)(c)}
8. The licensee shall operate and maintain a leachate collection and removal system in accordance with R 299.9619, 40 CFR §264.301(a)(2), and the plans and specifications in Attachment 7 of this license. As part of leachate collection and removal system maintenance, the licensee shall jet out the leachate collection system through the leachate cleanout pipes once every two years or more frequently, if needed, to ensure that it functions without clogging in accordance with 40 CFR §264.301(a)(2)(ii) and R 299.9619(4)(c)(i). The leachate captured by this system shall be transported via the dual-contained high density polyethylene pipeline in combination with an above-ground, visually inspected steel pipeline from the landfill to the sewer at the Michigan Operations facility and ultimately to the Dow-owned and operated wastewater treatment plant. See Drawing B2-105-1374 in Attachment 7 of this license.

**D. WASTE PLACEMENT**

1. The licensee shall ensure that the placement of all hazardous waste in the landfill is conducted in accordance with 40 CFR §§264.17(b), 264.313, 264.315, and 264.316. If containers of hazardous waste are crushed at the facility, the containers shall be crushed only inside the active landfill cell. {R 299.9521(2)(d) and (3)(b) and R 299.9619}
2. The licensee shall record the contents, quantity, and location of each daily waste deposit and place this documentation in the operating record. This information shall be recorded on a map

or diagram of the landfill and shall include cross references to specific manifest document numbers, if the waste was accompanied by a manifest. {R 299.9609 and R 299.9619 and 40 CFR §§264.73(b)(2) and 264.309}

3. After waste placement reaches the grade of the perimeter of the active landfill cell, the licensee shall annually survey and record the elevations of waste in the cell to insure that final grades as shown in Drawing B2-002-1374 in Attachment 7 of this license, are not exceeded. The results of the survey shall be submitted to the Division Chief within 60 days of completion of the survey. {R 299.9521(1)(b) and (3)(a)}

#### **E. CLOSURE/POSTCLOSURE**

1. The licensee shall complete closure in accordance with the engineering plans and specifications, and the construction quality assurance plan in the approved Closure Plan, Attachment 5 of this license. {R 299.9613 and R 299.9619(1) and (5) and 40 CFR §264.310}
2. The licensee shall notify the Division, Saginaw Bay District staff, and the Lansing Hazardous Waste Section staff, at least one week in advance of key events, to enable staff to be present to observe and/or take samples during the final cover placement activities. Key events may include test pad construction, placement of clay liner, placement and seaming of synthetic liner, and placement of drainage media and topsoil. {R 299.9521(1)(a) and (3)(a) and 40 CFR §270.30(i)}
3. The licensee shall construct the clay component of the final cover by using the same types of materials, equipment, and methods used in constructing the test pad, if a test pad is required by the Division. If the materials, equipment, or methods change significantly, a new test pad shall be constructed. {R 299.9521(3)(a) and (b), R 299.9619(5), R 299.9620, and R 299.9621}
4. The licensee shall conduct cap elevation surveys of existing and newly-closed cells in accordance with and on the frequency described in the survey schedule contained in the Cap Elevation Survey Plan included in the Closure Plan, Attachment 5 of this license. A final cover survey report, including a contour map of the final cover, shall be submitted to the Division for review and approval within 90 days of the completion of each survey. In addition, the licensee shall survey facility benchmarks every three years. {R 299.9619, 40 CFR §264.310(b)(1), (5) and (6), and {R 299.9521(3)(a)}

#### **F. ADDITIONAL REPORTING**

The licensee shall submit an annual inspection and maintenance summary report to the Division by March 1 of each year during the active life of the landfill and the postclosure care period. The annual inspection and maintenance report shall include a summary of all maintenance activities performed by the licensee to maintain the integrity of the active landfill and the final cover such as mowing, fertilization, and liming, and a copy of the associated inspection logs.

{R 299.9521(2)(a) and (b) and 40 CFR §270.31}

**PART IV  
ENVIRONMENTAL MONITORING CONDITIONS**

**A. GROUNDWATER MONITORING PROGRAM**

1. The licensee shall conduct a detection monitoring program for primary parameters. Under this program, the licensee shall operate and maintain a groundwater monitoring system in accordance with the Environmental Monitoring Program Sampling and Analysis Plan (SAP), Attachment 9, of this license. {R 299.9611(2)(a) and (b), R 299.9612, and R 299.9629 and 40 CFR Part 264, Subpart F, excluding 40 CFR §§264.94(a)(2) and (3), 264.94(b) and (c), 264.100, and 264.101}
2. The licensee shall submit proposed revisions to the SAP to the Division Chief for approval prior to implementation and shall revise any other affected document accordingly. If approved, the revisions to the SAP shall become part of this license without the need for a minor license modification. {R 299.9519(5)(c)(ii), R 299.9611(2)(a), R 299.9612, and 40 CFR §264.97(d) and (e)}
3. Purge water removed from each monitoring well shall be managed as specified in the SAP, Attachment 9 of this license. {R 299.9521(3)(b)}
4. The licensee shall submit an annual environmental monitoring report to the Division Chief no later than March 1 for the previous calendar year's activities. At a minimum, the report shall include the following information:
  - (a) A narrative summary of the previous calendar year's sampling events, including sampling event dates, the identification of any significant problems with respect to SAP procedures, and copies of field log sheets.
  - (b) A determination of the groundwater flow rate and direction in the monitored zone(s), including the preparation of a groundwater level contour map and flow net diagram and/or graphs from this data, a diagram(s) showing the horizontal and vertical flow components in the monitored zone(s), and/or hydrographs of these data.
  - (c) A summary of groundwater quality data results, including a narrative summary of results and trends and data tables.
  - (d) A presentation of the statistical analysis of the data and the identification of any statistically significant increases pursuant to Condition IV.A.6. of this license.
  - (e) An analysis and discussion of laboratory and field related QA/QC information. This shall include results of equipment, field, and trip blanks, and discussion and evaluation of the adequacy of the data with respect to SAP specifications and requirements.
  - (f) An evaluation of the tracking parameter data by developing Stiff diagrams or other geochemical graphical representations. Tracking parameters are listed in Table 2-A of the SAP, Attachment 9 of this license.
  - (g) For the wells specially noted in the SAP, Attachment 9 of this license, an evaluation that includes a descriptive summary of recovery or other changes in groundwater geochemistry over time to determine if operational changes to dust control activities at the facility are resulting in the reduction of the concentration of parameters in the groundwater associated with the historical road brining activities. It is expected that this evaluation will incorporate and reference the tracking parameter data presented as

required by Condition IV.A.4.(f).

{R 299.9521(3)(b) and R 299.9612(1) and 40 CFR §264.97(j)}

5. The licensee shall establish background groundwater quality values at each monitoring well for the parameters specified in Table 2-B, using the procedures in Attachment E of the SAP, Attachment 9 of this license. Background values may be modified only upon written approval of the Division Chief. {R 299.9612(1)(c), (d), and (e) and 40 CFR §264.97(a) and (g)}
6. Within 60 days of each sampling of each monitoring well, the licensee shall determine if a statistically significant increase has occurred compared to background levels for each primary parameter listed in Table 2-B of the SAP, Attachment 9 of this license. For the volatile and semivolatile organic primary parameters, any occurrence above the laboratory reporting limit(s) for the parameter(s) shall be considered to be statistically significant. The laboratory reporting limits are specified in Appendix B of the SAP, Attachment 9 of this license. For primary metal parameters, a statistically significant increase shall be determined using the procedure identified in Table 2-A of the SAP, Attachment 9 of this license. {R 299.9612(1)(c) and (e) and 40 CFR §264.97(h) and (i)}
7. If a statistically significant increase is detected for any primary parameter listed in Table 2-B of the SAP, Attachment 9 of this license, the licensee shall notify the Division, Hazardous Waste Section, Hazardous Waste Technical Support Unit, within one business day and arrange a resampling as soon as possible to confirm if a statistically significant increase exists. Resampling must include not less than four replicate samples at the affected well(s) for the parameter(s) in question. A statistically significant increase shall be confirmed as identified in Table 2-A of the SAP, Attachment 9 of this license. {R 299.9612 and 40 CFR §264.97(g)}
8. If the licensee determines pursuant to Conditions IV.A.6. and IV.A.7. of this license that a statistically significant increase has occurred for a primary parameter(s), the licensee shall address the increase in accordance with R 299.9612 and 40 CFR §264.98(f) and (g) and, in addition:
  - (a) Notify the Division Chief within one business day, by contacting the Division project geologist or permit engineer for the site, or the appropriate Division District Supervisor, or in the event of their unavailability, the MDEQ PEAS at 1-800-292-4706.
  - (b) Provide written notification to the Division Chief within seven days of the determination. The written notification shall indicate what parameters have shown statistically significant changes and the well(s) in which the changes have occurred.
  - (c) As soon as possible, sample the groundwater in the well where the statistically significant increase occurred and other glacial till and regional aquifer detection monitoring wells within 1,000 feet of the affected well and determine the concentration of all parameters identified in Appendix IX of 40 CFR Part 264 that are present in groundwater and for which approved analysis methods exist. However, the Division Chief may allow sampling for a site-specific subset of parameters from the Appendix IX list and other representative/related waste constituents. For parameters detected, the licensee may resample within one month or at an alternative schedule approved by the Director and repeat the analysis. If the results of the second analysis confirm the initial results, then these parameters will be included as primary parameters. If the licensee does not resample, the detected parameters will be included as primary parameters. The licensee shall also establish background values for the Appendix IX constituents detected pursuant to R 299.9612 and 40 CFR §264.98(g)(3).



- (d) Immediately take steps to determine the cause of the contamination and eliminate the source of discharge.
  - (e) Prior to a license modification requiring a compliance monitoring or corrective action program, the licensee shall provide the Division Chief, or his or her designee, with weekly updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and eliminating the discharge. The written report shall include the results of all samples from environmental monitoring conducted by the licensee. {R 299.9521(3)(b)}
  - (f) Within 90 days after the confirmation of a statistically significant increase, submit to the Division Chief an application for a license modification to establish a compliance monitoring or corrective action program meeting the requirements of R 299.9612 and 40 CFR §264.98(g)(4).
  - (g) Within 180 days after the determination, submit to the Division Chief detailed description of corrective actions that shall achieve compliance with applicable laws and rules, including a schedule of implementation. Corrective action shall also meet the requirements of R 299.9629 and include a plan for a groundwater monitoring program that shall demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of 40 CFR §264.99.
9. If the licensee determines pursuant to Conditions IV.A.6. and IV.A.7. of this license that a statistically significant increase in primary parameters has been confirmed in groundwater, the licensee may demonstrate that a source other than the licensed facility, or an error in sampling, analysis, or evaluation solely caused the identification of a statistically significant increase. While the licensee may make a demonstration under this condition in addition to, or in lieu of submitting a license modification application and implementing corrective action within the time specified in Conditions IV.A.8.(f) and IV.A.8.(g), the licensee is not relieved of the requirement to submit a license modification application and implement corrective action within the time specified, unless the MDEQ finds that the demonstration made under this condition successfully shows that a source other than the licensed facility caused the statistically significant increase or that the statistically significant increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this condition, the licensee shall:
- (a) Notify the Division Chief in writing within seven days of determining a statistically significant increase pursuant to Condition IV.A.7. that it intends to make a demonstration under this condition.
  - (b) Within 90 days after the determining a statistically significant increase pursuant to Condition IV.A.6., submit a report to the Division Chief that demonstrates a source other than the licensed facility solely caused the statistically increase, or that the statistically significant increase was caused by an error in sampling, analysis, or evaluation.

(c) Within 90 days of determining a statistically significant increase pursuant to Condition IV.6., submit to the Division Chief an application for a license modification to make any appropriate changes to the groundwater monitoring program at the facility.

(d) Continue to monitor groundwater in compliance with this license.

{40 CFR 264.98(g)(6)}

10. In the event that the Division Chief determines from the findings of Conditions IV.A.6. and IV.A.7. of this license that a statistically significant increase in hazardous constituents has occurred in the groundwater and the Director finds, in accordance with §11148 of Act 451, that the increase may present an imminent and substantial hazard to the health of persons or to the natural resources, or is endangering or causing damage to public health or the environment, the licensee shall immediately comply with an order issued by the Director pursuant to §11148(1) of Act 451 to cease waste receipt and disposal at the affected unit(s) and conduct other activities as required by the Director to eliminate the said endangerment.  
{R 299.9612(1)(g)}

#### **B. AMBIENT AIR MONITORING PROGRAM**

The licensee shall conduct ambient air monitoring in accordance with the program specified in the SAP, Attachment 9 of this license. {R 299.9611(2)(c)}

#### **C. SOIL MONITORING PROGRAM**

1. The licensee shall conduct a soil monitoring program as described in the SAP, Attachment 9 of this license. {R 299.9611(2)(d)}
2. Within 60 days of issuance of this license, the licensee shall propose a process for determining whether a statistically significant increase has occurred in comparison to background levels. Within 60 days of approval of this process by the Division Chief, the licensee shall evaluate existing soil box monitoring data and submit a report on this evaluation to the Division. Thereafter, within 60 days of each soil box monitoring event, the licensee shall begin making statistical determinations required under Condition IV.C.3.
3. Upon approval of the statistical evaluation methods required by Condition IV.C.2., within 60 days of each sampling of each soil box, the licensee shall determine if a statistically significant increase has occurred compared to background levels as specified in Table 2-A of the SAP, Attachment 9 of this license.
4. If a statistically significant increase is determined as specified in Table 2-A of the SAP, Attachment 9 of this license, the licensee shall notify the Division, Hazardous Waste Section, Hazardous Waste Technical Support Unit, within one business day and arrange a resampling as soon as possible to confirm if a statistically significant increase exists. Resampling shall include not less than four replicate samples at the affected soil box(s) for the parameter(s) in question. A statistically significant increase shall be confirmed if at least two of the four resample results represent a statistically significant increase as identified in Table 2-A of the SAP, Attachment 9 of this license.

5. If the licensee determines pursuant to Conditions IV.C.2. and IV.C.3. of this license that a statistically significant increase has occurred, the licensee shall address the increase in accordance with the following:
  - (a) Notify the Division Chief within one business day, by contacting the Division project geologist or permit engineer for the site, or the appropriate Division District Supervisor, or in the event of their unavailability, the MDEQ PEAS at 1-800-292-4706.
  - (b) Provide written notification to the Division Chief within seven days of the determination. The written notification shall indicate what parameters have shown statistically significant changes and the soil box(es) in which the changes have occurred.
  - (c) As soon as possible, determine the area affected by the statistically significant increase.
  - (d) Immediately take steps to determine the cause of the contamination and eliminate the source of discharge.
  - (e) Prior to a license modification requiring a compliance monitoring and corrective action program, the licensee shall provide the Division Chief, or his or her designee, with weekly updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and eliminating the discharge. The written report shall include the results of all samples from environmental monitoring conducted by the licensee. {R 299.9521(3)(b)}
  - (f) Within 90 days after the confirmation of a statistically significant increase, submit to the Division Chief an application for a license modification to establish a compliance monitoring and corrective action program.
  - (g) Within 180 days after the determination, submit to the Division Chief a detailed description of corrective actions that shall achieve compliance with applicable laws and rules, including a schedule of implementation. Corrective action shall also meet the requirements of R 299.9629 and include a monitoring plan that shall demonstrate the effectiveness of the corrective action. Such a monitoring program may be based on a compliance monitoring program developed pursuant to Condition IV.C.5.(f) of this license.
6. If the licensee determines pursuant to Conditions IV.C.2. and IV.C.3. of this license that a statistically significant increase has been confirmed, the licensee may demonstrate that a source other than the licensed facility, or an error in sampling, analysis, or evaluation solely caused the identification of a statistically significant increase. While the licensee may make a demonstration under this condition in addition to, or in lieu of submitting a license modification application and implementing corrective action within the time specified in Conditions IV.C.5.(f) and IV.C.5.(g), the licensee is not relieved of the requirement to submit a license modification application and implement corrective action within the time specified, unless the MDEQ finds that the demonstration made under this condition successfully shows that a source other than the licensed facility caused the statistically significant increase or that the statistically significant increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this condition, the licensee shall:

- (a) Notify the Division Chief in writing within seven days of determining a statistically significant increase pursuant to Condition IV.C.3. that it intends to make a demonstration under this condition.
- (b) Within 90 days after the determining a statistically significant increase pursuant to Condition IV.C.3., submit a report to the Division Chief that demonstrates a source other than the licensed facility solely caused the statistically increase, or that the statistically significant increase was caused by an error in sampling, analysis, or evaluation.
- (c) Within 90 days of determining a statistically significant increase pursuant to Condition IV.C.3., submit to the Division Chief an application for a license modification to make any appropriate changes to the soil monitoring program at the facility, if necessary.
- (d) Continue to conduct soil monitoring in compliance with this license.

**D. SURFACE WATER MONITORING PROGRAM**

- 1. The licensee shall conduct a surface water monitoring program as described in the SAP, Attachment 9 of this license.
- 2. Within 60 days of each sampling, the licensee shall determine if a confirmed statistically significant increase has occurred compared to baseline levels for each parameter listed in Table 2-B of the SAP, Attachment 9 of this license. A significant increase shall be determined using the statistical evaluation method specified in Table 2-B of the SAP, Attachment 9 of this license.
- 3. Duplicate samples shall be collected from each sampling location as described in the SAP, Attachment 9 of this license. Initially, the licensee is required to analyze only one of the two samples. The licensee shall hold the duplicate sample pending the results of the initial sample. If a significant increase is detected in a monitoring parameter(s), the duplicate sample shall be analyzed for confirmation purposes.
- 4. If significant increases of monitored parameters are confirmed, the licensee must immediately notify the Division Chief within one business day and within seven days in writing.
- 5. Within 30 days of the determination of a statistically significant increase, the licensee shall determine whether a discharge to surface waters is occurring, determine the source, and take immediate steps to eliminate and prevent any such discharge.

{R 299.9521(3)(a) and (b) and R 299.9611(5)}

**E. LEACHATE MONITORING PROGRAM**

- 1. The licensee shall conduct a leachate monitoring program as described in the SAP, Attachment 9 of this license.
- 2. The licensee shall tabulate and monitor the volume of leachate pumped from each leachate removal lift station at the facility and record the volume by month and place this documentation in the operating record. {R 299.9609(1)(b) and R 299.9619(4)(c)(iii)}
- 3. The results of the leachate characterization will be used to update the routine chemical

monitoring target list, shown in Table 2-A of the SAP, Attachment 9 of this license.

4. The licensee shall include a summary of leachate monitoring data in the annual environmental monitoring report submitted to the Division by March 1 of each year during the active life of the landfill and the postclosure care period. The leachate monitoring data shall include:
  - (a) Volume of leachate pumped from each leachate removal lift station.
  - (b) A graphical comparison between leachate quantities pumped/generated from each leachate removal lift station during the reported year and the leachate quantities pumped/generated from previous years.
  - (c) A description of changes in leachate quantities, including system performance evaluation or causes for the change(s).

{R 299.9521(3)(a) and (b) and R 299.9611(5)}

**F. LEAK DETECTION SYSTEM MONITORING PROGRAM**

1. The licensee shall withdraw liquid collected in the leak detection system in all cells on a monthly basis and record the volume of liquid withdrawn and discharged via the dual-contained high density polyethylene pipeline in combination with an above-ground, visually inspected steel pipeline from the landfill to the sewer at the Michigan Operations facility and ultimately to the Dow-owned and operated wastewater treatment plant.
2. The licensee shall analyze the water withdrawn from the leak detection system on a quarterly basis in accordance with the SAP, Attachment 9 of this license.
3. The licensee shall establish background in the leak detection system for each of the leachate monitoring parameters identified in Table 2-A of the SAP, Attachment 9 of this license.
  - (a) Background shall be calculated as described in Attachment E of the SAP, Attachment 9 of this license. During the first year following issuance of the license, the licensee shall monitor flow rates on a monthly basis and collect at least eight background samples of liquid from the leak detection system sumps for any parameters for which background is unavailable. Within 60 days after the last background sample is collected, the licensee shall submit a report to the Division Chief for review and approval that includes: a complete tabular summary of monitoring data used to calculate background concentrations, a description and summary of the statistical results, a tabular summary of flow rates, a proposed program for monthly monitoring, and an update to the SAP that incorporates the proposed program.
  - (b) For new cells, the background sampling period shall not extend beyond one year following the initial date of operation. Background shall be calculated by including the collection of a series of at least four samples from each leak detection system sump prior to placement of waste.

4. If additional parameters must be added to the leak detection monitoring program in accordance with Condition IV.E.3. of this license, the licensee must provide written notification to the Division Chief requesting modification to the program. If background has not already been established for these additional parameters, the licensee must determine background for these parameters within one year of issuance of this license.
5. The licensee shall provide written notification to the Division Chief requesting any changes that need to be made to the approved Leak Detection Monitoring Program in the SAP, Attachment 9 of this license, and obtain written approval prior to implementation.
6. The licensee shall, within 60 days after the sampling, report in writing to the Division Chief the laboratory data and the results from the statistical evaluation performed in accordance with the Leak Detection Monitoring Program in the SAP, Attachment 9, of this license. For the nonnaturally occurring leak detection monitoring parameters listed in Table 2-B of the SAP, Attachment 9 of this license, any occurrence above the laboratory detection limit(s) for the parameter(s) shall be considered statistically significant. For primary metal parameters, a statistically significant increase shall be determined using the procedure identified in Table 2-A of the SAP, Attachment 9 of this license.
7. If a statistically significant increase is detected in any of the monitored parameters, the licensee shall immediately notify the Division that this situation has occurred and arrange for a resampling as soon as possible to confirm if the statistical increase exists. If adequate water can be obtained from the system, confirmation samples shall be collected in quadruplicate. A statistically significant increase shall be confirmed as identified in Table 2-A of the SAP, Attachment 9 of this license.
8. If the licensee confirms that a statistically significant increase in a monitored parameter has occurred, the following actions must be taken:
  - (a) Immediately notify the Division Chief within one business day, by contacting the Division project geologist or permit engineer for the site, or the appropriate Division District Supervisor, or in the event of their unavailability, the MDEQ PEAS at 1-800-292-4706.
  - (b) Provide follow up notification to the Division Chief in writing within five days of the initial contact in accordance with Condition II.I.5. of this license.
  - (c) Begin immediate action to implement the current contingency plan, as appropriate.
  - (d) Determine, within 30 days of notification, whether a failure in the liner system has occurred.
  - (e) Provide the Division Chief, or his or her designee, with weekly updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and the results of all samples from environmental monitoring conducted by the licensee.
9. If the determinations made pursuant to Condition IV.F.8.(d) of this license, indicate a release of contaminants from the primary systems of the hazardous waste cells, the licensee shall do either of the following:

- (a) Begin immediate action to repair failures in the liner system or otherwise correct the problem and demonstrate to the Division Chief within 72 hours that the action being taken will contain the release of contaminants and maintain the capability of the system to detect contaminants that may enter the leak detection system. The licensee shall complete the repair and corrective activities pursuant to a schedule approved by the Division Chief and shall obtain the certification of a registered professional engineer that, to the best of his or her knowledge or opinion, the remedial actions have been completed. If the Division Chief determines that the failure cannot be corrected on a schedule that insures the protection of human health and the environment, the licensee shall comply with Condition IV.F.9.(b) of this license.
  - (b) Cease placing waste into the affected cell(s) and take action to prevent the migration of hazardous waste and hazardous waste constituents from the leak detection system with an identified failure on a schedule approved by the Division Chief, and propose a plan to address any environmental damages that may have occurred as a result of the failure.
- 10. The licensee shall provide the Division Chief with a written annual report by March 1 of each year summarizing the data and the monitoring program results from the previous calendar year. The annual report shall include graphical presentations summarizing volume pumped from the leak detection system per month and volume pumped from the leak detection system versus volume pumped from the leachate collection system. The leak detection system monitoring annual report shall be included as part of the annual environmental monitoring report required in Condition IV.A.4. of this license.

{R 299.9521(3)(a) and (b) and R 299.9611(5)}

**PART V  
CORRECTIVE ACTION CONDITIONS**

**A. CORRECTIVE ACTION AT THE FACILITY**

1. The licensee shall implement corrective action for all releases of a contaminant from any waste management units (WMUs) at the facility, regardless of when the contaminant may have been placed in or released from the WMU. For the purposes of this license, the term "corrective action" means an action determined by the Division Chief to be necessary to protect the public health, safety, welfare, or the environment, and includes, but is not limited to, investigation, evaluation, cleanup, removal, remediation, monitoring, containment, isolation, treatment, storage, management, temporary relocation of people, and provision of alternative water supplies, or any corrective action allowed under Title II of the federal Solid Waste Disposal Act, or regulations promulgated pursuant to that act. For the purposes of this license, the remedial process associated with the environmental protection standards of Part 201, Environmental Remediation, of Act 451 or a substantially equivalent process approved by the Division Chief shall be used to satisfy the corrective action obligations under this license. {§§11102, 11115a, 20120a, and 20120b of Act 451 and R 299.9629(1)(a)}
2. To the extent that a release of a hazardous substance, as defined in §20101(t) of Act 451, that is not also a contaminant, as defined in §11102(2) of Act 451, is discovered while performing corrective action under this license, the licensee shall take concurrent actions as necessary to address the Part 201 of Act 451 remedial obligations for that release. {R 299.9521(3)(b)}

**B. CORRECTIVE ACTION BEYOND THE FACILITY BOUNDARY**

The licensee shall implement corrective action beyond the facility in accordance with §11115a of Act 451 and R 299.9629(2).

**C. IDENTIFICATION OF WASTE MANAGEMENT UNITS**

The WMUs at the facility are identified below and shown in the figures in Attachment 7 of this license.

1. The following WMUs do not require corrective action at this time:
  - (a) The WMU that is currently operating pursuant to the act and its rules with no evidence of a release of any contaminants. Corrective action may be required when any of the unit(s) undergo final closure.

WMU	Description	Approximate Cell Acreage
Cells 20-22	Active hazardous and solid waste cells	7.2
Cells 23-28	Hazardous waste cells under construction	13.6
Wash Building 3601	Vehicle wash facility	NA



- (b) The following WMUs, based on the design of the units and available information that indicates that no known or suspected releases of contaminants from the units have occurred.

<b>WMUs</b>	<b>Description/Year Closed</b>	<b>Approximate Cap Acreage</b>
Cells 1-2	Closed hazardous/solid waste cells/1984	1.9
Cells 3-5	Closed hazardous waste cells/1984	2.2
Cells 6-8	Closed hazardous waste cells/1986	1.7
Cells 9-10	Closed hazardous waste cells/1986	1.7
Cells 11-12	Closed hazardous waste cells/1986	2.5
Cells 13-14	Closed hazardous waste cells/1988	3.2
Cells 15-16	Closed hazardous waste cells/1991	3.5
Cells 17-19	Closed hazardous waste cells/2005	6.1
Cells 38-39	Closed solid waste cells/1988	4
Cells 40-43	Closed solid waste cells/2005	9.4

2. The following WMUs require further corrective action at this time that includes, at a minimum, further investigation to determine if a release of a contaminant has occurred and, if a release has occurred, the nature and extent of the release.

- (a) None identified at the time of license issuance; however, if any should be identified in the future, they will be added to the license via a minor modification.

{§§11102 and 11115a of Act 451 and R 299.9521(3)(b) and R 299.9629}

3. Within 30 days of discovery of a new WMU or a release of a contaminant from a new WMU, the licensee shall provide written notification to the Division Chief. The written notification shall include all of the following information:

- (a) The location of the unit on the facility topographic map.
- (b) The designation of the type of unit.
- (c) The general dimensions and structural description, including any available drawings of the unit.
- (d) The date the unit was operated.
- (e) Specification of all waste(s) that have been managed in the unit.
- (f) All available information pertaining to any release of a contaminant from the unit.

4. Based on a review of all of the information provided in Condition V.C.3. of this license, the Division Chief may require corrective action for the newly identified WMU. The licensee shall submit a written RCRA facility investigation (RFI) Work Plan to the Division Chief within 60 days of written notification by the Division Chief that corrective action for the unit is required.

{§§11102 and 11115a of Act 451 and R 299.9504(1), R 299.9508(1)(b), and R 299.9629 and 40 CFR §270.14(d)}

#### **D. RCRA FACILITY INVESTIGATION/REMEDIAL INVESTIGATION**

Within 60 days of receipt of written notification that a response activity is required, in accordance with Condition V.K. of this license, the licensee shall conduct an investigation that conforms with, or that is substantially equivalent to, the remedial investigation in accordance with the provisions of Part 201 of Act 451 to determine if a release of a contaminant(s) from any of the WMUs identified in Condition V.C. of this license has occurred and, if a release(s) has occurred, evaluate the nature and extent of the release(s). The licensee shall submit a written RFI Work Plan, RFI Final Report documenting compliance with the approved RFI Work Plan and supporting further corrective action at the facility, and RFI progress reports to the Division Chief for review and approval in accordance with Condition V.K. of this license. The Division Chief will approve, modify and approve, or provide a Notice of Deficiency (NOD) for the RFI Work Plan and RFI Final Report. Upon approval, the RFI Work Plan and RFI Final Report become enforceable conditions of this license. {§§11102 and 11115a of Act 451, R 299.9629, and Part 201 of Act 451}

**E. INTERIM MEASURES/INTERIM RESPONSE ACTIVITIES**

The licensee shall conduct interim measures (IM) at the facility, if determined necessary by the licensee or the Division Chief, to cleanup or remove a released contaminant or to take other actions, prior to the implementation of a remedial action, as may be necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment. The licensee shall conduct IM that conform with, or that are substantially equivalent to, the interim response activity provisions of Part 201 of Act 451. The licensee shall submit written IM Work Plan, IM Final Report documenting compliance with the approved IM Work Plan and supporting further corrective action at the facility, and IM progress reports to the Division Chief for review and approval in accordance with Condition V.K. of this license. The Division Chief will approve, modify and approve, or provide a NOD for the IM Work Plan and IM Final Report. Upon approval, the IM Work Plan and IM Final Report become enforceable conditions of this license. {§§11102 and 11115a of Act 451, R 299.9629, and Part 201 of Act 451}

**F. DETERMINATION OF NO FURTHER ACTION**

1. The licensee shall continue corrective action measures to the extent necessary to ensure that the applicable environmental protection standards established under Part 201 of Act 451, as adopted in Part 111 of Act 451, are met, if the limits are not less stringent than allowed pursuant to the provisions of RCRA.
2. Based on the results of the RFI and other relevant information, the licensee shall submit a written request for a license minor modification to the Division Chief if the licensee wishes to terminate corrective action for a specific WMU identified in Condition V.C. of this license. The licensee must demonstrate that there have been no releases of a contaminant(s) from the WMU and that the WMU does not pose a threat to public health, safety, welfare, or the environment.
3. Based on the results of the RFI and other relevant information, the licensee shall submit a written request for a license major modification to the Division Chief if the licensee wishes to terminate facility-wide corrective action. The licensee must demonstrate that there have been no releases of a contaminant(s) from any of the WMUs at the facility and that none of the WMUs pose a threat to public health, safety, welfare, or the environment.
4. If, based upon a review of the licensee's request for a license modification pursuant to Condition V.F.2. or V.F.3. of this license, the results of the completed RFI, and other relevant information, the Division Chief determines that the releases or suspected releases of a contaminant(s) do not exist and that the WMU(s) do not pose a threat to public health, safety,

welfare, or the environment, the Division Chief will approve the requested modification.

5. A determination of no further action shall not preclude the Division Chief from requiring continued or periodic monitoring of air, soil, groundwater, or surface water, if necessary to protect public health, safety, welfare, or the environment, when facility-specific circumstances indicate that potential or actual releases of a contaminant(s) may occur.
6. A determination of no further action shall not preclude the Division Chief from requiring further corrective action at a later date, if new information or subsequent analysis indicates that a release or potential release of a contaminant(s) from a WMU at the facility may pose a threat to public health, safety, welfare, or the environment. The Division Chief will initiate the necessary license modifications if further corrective action is required at a later date.

{§§11102, 11115a and 20120a of Act 451 and R 299.9629(2)}

**G. CORRECTIVE MEASURES STUDY/FEASIBILITY STUDY**

If the Division Chief determines, based on the results of the RFI and other relevant information, that response activities are necessary, the Division Chief will notify the licensee in writing that a corrective measures study (CMS) is required. If required by the Division Chief, the licensee shall conduct a CMS to develop and evaluate the response activity alternative(s) necessary to address the release(s) of a contaminant(s) or hazardous substances and the WMU(s) that are identified in the approved RFI Final Report as requiring final response activities. The licensee shall conduct a CMS that conforms with, or that is substantially equivalent to, the Feasibility Study provisions of Part 201 of Act 451. The licensee shall submit a written CMS Work Plan, a CMS Final Report documenting compliance with the approved CMS Work Plan and supporting further corrective action at the facility, and CMS progress reports to the Division Chief for review and approval in accordance with Condition V.K. of this license. The Division Chief will approve, modify and approve, or provide a NOD for the CMS Work Plan and CMS Final Report. Upon approval, the CMS Work Plan and CMS Final Report become enforceable conditions of this license. {§§11102 and 11115a of Act 451, R 299.9629, and Part 201 of Act 451}

**H. CORRECTIVE MEASURES IMPLEMENTATION PLAN/REMEDIAL ACTION PLAN**

1. The licensee shall conduct final response activities based on the CMS Final Report approved by the Division Chief. If the final response activities are based on criteria in categories provided for in §20120a(1)(a) to (j) or (2) of Act 451, which are adopted by reference in R 299.9629(3)(a)(iii), the licensee shall submit a written Corrective Measures Implementation Plan (CMIP) that conforms with, or that is substantially equivalent to, the remedial action plan provisions in §20120b of Act 451 to the Division Chief for review and approval. The licensee shall also submit a written Completion Report, documenting the completion criteria and providing justification that the remedial actions may cease, and CMIP progress reports to the Division Chief for review and approval in accordance with Condition V.K. of this license. The Division Chief will approve, modify and approve, or provide a NOD for the CMIP and Completion Report. Upon approval, the CMIP and Completion Report become enforceable conditions of this license.

2. The Division will provide notice of its draft decision on the CMIP to persons on the facility mailing list and an opportunity for a public hearing.
3. The licensee shall implement the approved CMIP within 45 days of receipt of the Division Chief's written approval of the CMIP.

{§§11102, 11115a, 20120a, and 20120b of Act 451 and R 299.9629}

**I. CORRECTIVE ACTION MANAGEMENT UNITS**

If applicable, the licensee shall comply with the requirements of R 299.9635 in order to designate an area at the facility as a corrective action management unit for implementation of response activities. {R 299.9521(3)(a)}

**J. TEMPORARY UNITS**

If applicable, the licensee shall comply with the requirements of R 299.9636 in order to designate tank or container storage units used for the treatment or storage of remediation wastes as temporary units for implementation of response activities. {R 299.9521(3)(a)}

**K. SUMMARY OF CORRECTIVE ACTION SUBMITTALS**

The licensee shall submit the required corrective action documents in accordance with Conditions V.D., V.E, V.G, and V.H. of this license and the schedule below, unless otherwise approved in writing by the Division.

<b>CORRECTIVE ACTION DOCUMENT</b>	<b>SUBMITTAL DEADLINE</b>
Written notification of a new release of a contaminant from an existing WMU, a new WMU, or a release of a contaminant from a new WMU	Within 30 days of discovery
RFI Work Plan for a newly identified release of a contaminant from an existing WMU, a new WMU, or a release of a contaminant from a new WMU	Within 60 days of receipt of written notification that response activity is required
Revised RFI Work Plan for WMUs and contaminant releases	Within 60 days of receipt of RFI Work Plan NOD
RFI progress reports	Within 90 days of initiation of the RFI and quarterly thereafter
RFI Final Report for WMUs and contaminant releases	Within 60 days of completion of RFI
Revised RFI Final Report for WMUs and contaminant releases	Within 45 days of receipt of RFI Final Report NOD
IM Work Plan for WMUs and contaminant releases	Within 60 days of receipt of notification that IM Work Plan is required
Revised IM Work Plan for WMUs and contaminant releases	Within 60 days of receipt of IM Work Plan NOD

<b>CORRECTIVE ACTION DOCUMENT</b>	<b>SUBMITTAL DEADLINE</b>
IM progress reports	Within 30 days of initiation of the IM and monthly thereafter
IM Final Report for WMUs and contaminant releases	Within 60 days of completion of the IM
Revised IM Final Report for WMUs and contaminant releases	Within 45 days of receipt of IM Final Report NOD
CMS Work Plan for WMUs and contaminant releases	Within 90 days of receipt of notification that CMS is required
Revised CMS Work Plan for WMUs and contaminant releases	Within 60 days of receipt of CMS Work Plan NOD
CMS progress reports	Within 90 days of initiation of the CMS and quarterly thereafter
CMS Final Report for WMUs and contaminant releases	Within 60 days of completion of the CMS
Revised CMS Final Report for WMUs and contaminant releases	Within 45 days of receipt of CMS Final Report NOD
CMIP for WMUs and contaminant releases	Within 90 days of approval of the CMS Final Report
Revised CMIP for WMUs and contaminant releases	Within 60 days of receipt of CMIP NOD
CMIP progress reports	Within 90 days of implementation of the CMIP and quarterly thereafter, unless otherwise approved
CMIP Completion Report for remediated WMUs and contaminant releases	Within 60 days of the remedial actions have been completed and cleanup criteria have been met
Revised CMIP Completion Report for WMUs and contaminant releases	Within 45 days of receipt of Completion Report NOD

#### **L. CORRECTIVE ACTION DOCUMENTS RETENTION**

The licensee shall maintain all corrective action documents required by this license at the facility and/or the alternate locations referenced in Condition II.R. of this license. The documents shall be maintained for the operating life of the facility or until the facility is released from financial assurance requirements for corrective action by the Director, whichever is longer. The licensee shall offer such documents to the Division Chief prior to discarding those documents. {§§11102 and 11115a of Act 451 and R 299.9521(3)(b) and R 299.9629}